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ABSTRACT

The effects of three play contexts on young children's turn taking, topic maintenance, and topic change skills were investigated. Participants were 40 normally-developing, English-speaking Caucasian children of middle-income parents; they ranged in age from approximately 4 years to 6 and one half years. Subjects were subdivided into younger and older groups each containing 10 males and 10 females. All subjects engaged in three counterbalanced experimental conditions with the same examiner on three consecutive days. Conditions were entitled "Let's Go Shopping," "Kitchen Play," and "The Secret Box" and involved, respectively, a toy grocery cart and plastic food items; a toy stove and refrigerator, plastic plates, cutlery, and assorted cooking utensils; and a cardboard box containing a rubber ball, a toy telephone, some dolls, a comb, and a toothbrush. No formal instructions were provided to subjects who were told only that they were "going to play." Examiners' verbalizations were limited to the use of conversational placeholders and descriptives. A total of 150 spontaneously produced utterances were analyzed. Results suggested that thematically-oriented and goal-directed play contexts serve to maximize young children's use of the above discourse parameterss investigated in this study. Recommendations for designing and implementing such contexts are offered in order to enhance children's conversational and linguistic skill development. (Author/RH)

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Using Play Behavior to Describe Young Children's Conversational Abilities

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Abstract

The effects of three play contexts on young children's turn taking, topic maintenance, and topic change skills were investigated. One hundred-fifty spontaneously produced utterances were analyzed based upon dyadic adult-child interaction. Results suggested that thematically-oriented and goal-directed play contexts serve to maximize young children's use of the above discourse parameters. Recommendations for designing and implementing such contexts are offered in order to enhance children's conversational (and linguistic) skill development.

INTRODUCTION

Children learn to be active conversationalists as a function of the varied types of changing social communicative contexts they encounter (Allen & Brown, 1977; Prutting, 1982). Furthermore, conversational competence may be determined, in part, by the ability to integrate the form of language (or syntax) and the function of language (word meaning and word choice) within these changing conversational settings.

The Conversational Context

It is important to consider the environment in which conversation takes place. It has been reported that play contexts provide a foundation for observing and evaluating children's conversational skills (Allen & Brown, 1977; Garvey, 1977; Garwood, 1982; Halle, Alpert, & Anderson, 1984; Irwin, 1975; Liebergott & Swope, 1976; McConkey, 1984; Miller & Yoder, 1974; Mindes, 1982; Muma, 1981; Nicolich, 1977; Overton & Jackson, 1973; Prutting, 1982; Shulman, 1984). Garvey (1977) suggests that children's utterances regulate and integrate the communication of meaningful social speech acts with play behavior during discourse. Such utterances may, in part, function as signals for taking conversational turns and as attention-getting or topic maintaining devices.

The Nature of Conversation: Parameters

Watzlawick, Beavin, and Jackson (1967) theorize that since communication is viewed as a system, patterns present between individuals engaged in communicative interaction should be analyzed. Based upon this theory of communication as an interactional system, Miller (1978) suggested that children's conversational skills be analyzed relative to their turn taking, topic maintenance, and topic change skills.

Turn taking. Giattano, Pollack, and Silliman (1978) defined a conversational turn as the onset of one speaker's utterances to the conclusion of the second speaker. The following example illustrates this point with the horizontal line indicating the completion of one conversational turn.

Teacher	Student
How many dolls do you have?	I only have three. This many. Oh my! I really have four.
Look how many I have!	

Taking a turn during conversation involves more than waiting while another speaker finishes (Wood, 1982). According to Dore, Gearhart, and Newman (1978), conversational turns affect **what** is said, **when** something is said, and **how** speakers interact during conversation. That is, the conversational content, timing of utterances, and

speaker style are directly related to the turn taking system (Coulthard, 1977). It has also been suggested that while children begin to demonstrate patterns of turn taking during the preschool years, they continue to be conversationally simplistic (Terrell, 1985). Rationale for this assertion rests in the obvious notion that such children's grammatical and vocabulary skills are underdeveloped at this age which, in turn, precludes the existence of more "adult-like" conversational strategies. As these linguistic areas become more refined, however, so do children's conversational competence.

Miller (1978) analyzed the turn taking skills of five nonimpaired, normally developing children and seven language impaired children as they participated in symbolic play activities. Specific aspects of turn taking studied were the number of verbal turns and utterances per conversational turn. Results yielded significant differences for both variables across subject groups. That is, the normal subjects took a greater number of verbal turns and produced more utterances per turn while the opposite held true for the language impaired group.

Topic Maintenance and Topic Change. According to Sacks, Schegloff, and Jefferson (1974), turn taking influences how well or how poorly speakers maintain or change conversational topics. It also provides motivation

for listening and may be used to indicate comprehension of the communicated message.

Adult-child conversations have been analyzed according to how children deal with conversational topics over a period of time. Keenan and Schieffelin (1976) observed potential deficits in topic maintenance ability among children who exhibited limited verbal skills, short attention spans, distractibility, and/or poor language comprehension skills. By the age of four years, however, children should begin to evidence some degree of topic maintenance behavior (Bloom, Rocissano, & Hood, 1976; Garvey, 1977; Gelman & Shatz, 1977). In turn, their conversations become more organized, cohesive, and topic-specific.

Measuring topic maintenance (and topic change) involves the combination of quantitative measures and qualitative descriptions of the linguistic content produced during discourse. Miller (1978) examined these discourse behaviors according to the following quantitative measures: total speaking time, number of utterances per verbal turn, number and percentages of topic switches (changes). These, in conjunction with descriptions pertaining to conversational context and materials, comprised the assessment (and intervention) procedures employed.

Given the above, the purpose of the present investigation was to examine the effects of three play

contexts on young children's turn taking, topic maintenance, and topic change skills.

METHOD

Subjects

A total of forty normally-developing, English-speaking Caucasian children (twenty males and twenty females), of middle-income parents, served as subjects. They ranged in chronological age from 4;2 to 6;6 and were subdivided into a younger and older group (Group A and Group B, respectively) each containing ten males and ten females. All subjects were free from any speech, language, hearing, and visual impairment based on evaluative measures.

Procedures

Collection and Transcription of Videotaped Data. All subjects were videotaped in a specially designed and equipped university-affiliated research facility. Spontaneously produced corpora per subject contained a total of one hundred-fifty utterances (fifty utterances per experimental condition). All were orthographically transcribed by four graduate students trained in Bloom and Lahey's (1978) videotape transcription procedures. Randomly selected portions of verbatim transcripts were subjected to a test of interjudge reliability. A Pearson Product Moment Correlation was computed and a coefficient for interjudge reliability of .98 was obtained.

Experimental Conditions. All subjects engaged in three counterbalanced experimental conditions with the same examiner on three consecutive days. Condition 1 entitled "Let's Go Shopping" (LGS) was administered using a toy grocery cart and plastic food items. Condition 2, "Kitchen Play" (KP), consisted of a toy stove and refrigerator, plastic plates, cutlery, and assorted cooking utensils. The third condition (3), "The Secret Box", employed a cardboard box containing a rubber ball, a toy telephone, some dolls, a comb, and a toothbrush.

No formal instructions were provided to any of the subjects during the experimental conditions with the exception of being informed that they were "going to play." During all conditions, the examiner assumed what Hubbell (1977) terms a "facilitative" role. That is, examiner verbalizations were limited to the use of conversational placeholders (e.g., uh huh, okay, hmmm) and descriptives (i.e., statements used to describe the subjects' and or examiner's behavior). Such strategies serve to maintain and regulate the flow of conversation without changing the existing topic.

RESULTS

To analyze the subjects' conversational behavior, a multivariate analysis of variance was performed on the data. Specific statistical procedures examined the effects of experimental condition and chronological age on the

subjects' turn taking, topic maintenance, and topic change skills.

Turn Taking

Turn taking was measured by calculating the number of verbal turns (VT) and the number of utterances per turn (UTPT). Table 1 presents the data corresponding to these turn taking measures across each experimental condition for both groups of subjects.

Insert Table 1 About Here

The SB condition produced a greater number of verbal turns, on the average, while the KP context yielded the fewest number of verbal turns for both subject groups. Statistical analysis revealed a significant difference between VT and experimental condition, $F(1,39) = 10.95$, $p<.05$. A significant difference also existed for VT as a function of chronological age, $F(1,39) = 20.87$, $p<.05$. Likewise, significant differences were indicated for the UTPT as a function of experimental condition, $F(1,39) = 3.29$, $p<.05$.

Topic Maintenance and Topic Change

The subjects' and examiner's use of the conversational time (in seconds) was measured according to (1) the total duration of each experimental condition (TTIME), (2) the total time on the intended conversational topic (TTOP), and

the duration of topic change (DTOPC). Statistical analysis revealed significant differences between the subjects' TTIME and experimental condition, $F(2,39) = 24.53$, $p<.05$. Significant differences were also noted for the variables TTOP and DTOPC as a function of experimental condition, $F(2,39) = 17.86$, $p<.05$ and $F(2,39) = 26.88$, $p<.05$, respectively.

In addition to measuring DTOPC, the mean number of topic changes (MNTC) exhibited by the subjects across each of the experimental conditions was also calculated. Table 2 illustrates this data.

Insert Table 2 About Here

Upon examination of MNTC, intra-group similarities were noted. That is, regardless of the experimental condition under question, the younger subjects' frequency of topic change was similar to the older subjects'. Analysis of MNTC as a function of experimental condition was statistically significant, $F(2,39) = 26.88$, $p<.05$.

DISCUSSION

Interpretation of the data generated from the present investigation revealed the LGS and KP conditions to be more sensitive to the subjects' use of significantly greater turn taking and topic maintenance strategies as well as

significantly fewer tendencies for topic change in comparison to the SB condition. One explanation for this rests in the obvious thematic nature of the LGS and KP contexts. The materials used in each of these conditions appeared to prescribe the intended conversational topics (i.e., "grocery shopping" for the LGS condition; "cooking" for the KP condition) whereas those used in the SB condition appeared too overwhelming and non-specific. Consequently, the subjects' conversations in the two former conditions were more topically controlled, more directive, and more cohesive. Such was not the case in the SB context, wherein the subjects' conversations were primarily non-cohesive, non-topical, and characteristically different from the LGS and KP conditions. In turn, this could have explained the increase in the number of verbal turns and topic changes taken by the subjects during the SB condition.

In summary, this investigation has demonstrated the utility of designing and structuring play contexts in order to maximally facilitate young children's use of discourse strategies. Additionally, material selection appears to be a crucial factor in designing such communicative settings. Since children naturally engage in play-oriented activities, conversational analyses must unequivocally examine competence at controlling the discourse event using naturalistic contexts. Future research should employ similar methodology to empirically document the effects of

thematically-based contexts on the conversational performance of atypical and culturally different children. Data generated from these investigations may be used as comparative measures with the present investigation.

ADDENDUM

Portions of this paper were presented at the 1984 annual meeting of the National Association for the Education of Young Children (Los Angeles, California) and the Third International Congress for the Study of Child Language, (Austin, Texas).

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Table 1

Subjects' Turn Taking Performance Across Experimental Conditions

			VT			UTPT		
	n	Condition	LGS	KP	SB	LGS	KP	SB
Group A	20		40.0	37.9	47.9	2.05	2.27	1.28
Group B	20		45.9	39.0	53.4	2.10	2.15	1.16

Table 2

Subjects' Topic Change Performance Across Experimental Conditions

	n	MNTC		
	Condition	LGS	KP	SB
Group A	20	1.5	3.4	6.5
Group B	20	1.4	3.1	6.3